AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1. (currently amended): ~~An~~ A NO_x removal catalyst management unit for use with ~~an~~

NO_x removal apparatus, the management unit being provided for managing a plurality of NO_x

removal catalyst layers provided in a flue gas NO_x removal apparatus, characterized in that the

management unit comprises NO_x measurement means for determining NO_x concentrations on the

inlet and outlet sides of respective NO_x removal catalyst layers; NH_3 measurement means for

determining NH_3 concentrations on the inlet and outlet sides of the same NO_x removal catalyst

layers; and percent NO_x removal determination means for determining percent NO_x removal (η)

on the basis of an inlet mole ratio (i.e., inlet NH_3/inlet NO_x), the inlet mole ratio being derived

from ~~an~~ a NO_x concentration which is ~~an~~ a NO_x concentration as measured on the inlet side by

means of said NO_x measurement means and an NH_3 concentration which is an NH_3

concentration as measured on the inlet side by means of said NH_3 measurement means; an NH_3

concentration which is an NH_3 concentration as measured on the inlet side; an NH_3 concentration

which is an NH_3 concentration as measured on the outlet side; a NO_x concentration which is a

NO_x concentration as measured on the outlet side; and an evaluation mole ratio which is

predetermined for the purpose of evaluating respective NO_x removal catalyst layers or plurality

of NO_x catalyst layers, wherein the percent NO_x removal (η) is determined on the basis of the

following equation (1):

$$\underline{\eta = \{(\text{inlet NH}_3 - \text{outlet NH}_3)/(\text{inlet NH}_3 - \text{outlet NH}_3 + \text{outlet NO}_x)\} \times 100 \times (\text{evaluation mole}}$$

$$\underline{\text{ratio/inlet mole ratio)} \qquad (1).}$$

2. (canceled).

3. (canceled).

4. (currently amended): ~~An~~ A NO$_x$ removal catalyst management unit according to ~~any~~ ~~of claims~~ claim 1 ~~to 3~~ for use with ~~an~~ a NO$_x$ removal apparatus, which management unit further includes transmission means for transmitting concentration values determined by the NO$_x$ measurement means and the NH$_3$ measurement means to the percent NO$_x$ removal determination means, wherein the percent NO$_x$ removal determination means determines the percent NO$_x$ removal (η) of respective NO$_x$ removal catalyst layers included in a plurality of flue gas NO$_x$ removal apparatuses.

5. (currently amended): A method for managing ~~an~~ a NO$_x$ removal catalyst for use with ~~an~~ a NO$_x$ removal apparatus, the method being provided for managing a plurality of NO$_x$ removal catalyst layers provided in a flue gas NO$_x$ removal apparatus, characterized in that the method comprises determining NO$_x$ concentrations and NH$_3$ concentrations on the inlet and outlet sides of respective NO$_x$ removal catalyst layers; determining percent NO$_x$ removal (η) on the basis of an inlet mole ratio (i.e., inlet NH$_3$/inlet NO$_x$); an NH$_3$ concentration which is an NH$_3$ concentration as measured on the inlet side; an NH$_3$ concentration which is an NH$_3$ concentration as measured on the outlet side; a NO$_x$ concentration which is a NO$_x$ concentration as measured

on the outlet side: and an evaluation mole ratio which is predetermined for the purpose of

evaluating respective NO_x removal catalyst layers or plurality of NO_x catalyst layers; and

evaluating performance of respective NO_x removal catalyst layers on the basis of the percent

NO_x removal (η), the inlet mole ratio being derived from ~~an~~ a NO_x concentration which is ~~an~~ a

NO_x concentration as measured on the inlet side and an NH_3 concentration which is an NH_3

concentration as measured on the inlet side; and wherein the percent NO_x removal (η) is

determined on the basis of the following equation (1):

$$\eta = \{(\text{inlet } NH_3 - \text{outlet } NH_3)/(\text{inlet } NH_3 - \text{outlet } NH_3 + \text{outlet } NO_x)\} \times 100 \times (\text{evaluation mole}$$
$$\text{ratio/inlet mole ratio)} \qquad (1).$$

6. (canceled).

7. (canceled).

8. (currently amended): A method according to ~~any of claims~~ claim 5 ~~to 7~~ for managing

~~an~~ a NO_x removal catalyst for use with ~~an~~ a NO_x removal apparatus, wherein the method further

comprises performing restoration treatment of ~~an~~ a NO_x removal catalyst layer having a catalytic

performance deteriorated to a predetermined level, on the basis of results of performance

evaluation of the respective NO_x removal catalyst layers.

9. (currently amended): A method according to claim 8 for managing ~~an~~ a NO_x removal

catalyst for use with ~~an~~ a NO_x removal apparatus, wherein the performance restoration treatment

is replacement of the NO_x removal catalyst layer with a new NO_x removal catalyst layer,

replacement of the NO_x removal catalyst layer with a regenerated NO_x removal catalyst layer,

replacement of the NO_x removal catalyst layer with an NO_x removal catalyst layer inverted with

respect to the direction of the flow of discharge gas, or replacement of the NO_x removal catalyst

layer with an NO_x removal catalyst layer from which a deteriorated portion has been removed.

10. (currently amended): A method according to any of claims 5 to 7and 8 for managing

an a NO_x removal catalyst for use with an a NO_x removal apparatus, wherein the method further

comprises determining the percent NO_x removal of respective NO_x removal catalyst layers

included in a plurality of flue gas NO_x removal apparatuses and evaluating catalytic performance

of respective NO_x removal catalyst layers included in a plurality of flue gas NO_x removal

apparatuses.

11. (canceled).

12. (currently amended): A method according to claim 9 for managing an a NO_x

removal catalyst for use with an a NO_x removal apparatus, wherein the method further comprises

determining the percent NO_x removal of respective NO_x removal catalyst layers included in a

plurality of flue gas NO_x removal apparatuses and evaluating catalytic performance of respective

NO_x removal catalyst layers included in a plurality of flue gas NO_x removal apparatuses.